

REMARKS

The Office Action of April 14, 2009, has been received and carefully considered.

As a preliminary matter, claim 29 has been amended to more particularly set forth the invention. Specifically, claim 29 has been amended to recite a multipass method, and an unfocused laser beam is now specified.

New claim 52 recites a method claim having the limitations of claims 38 and 43.

The specification has been amended at page 11, line 31, to correct a minor typographical error, in that the figure illustrating the kerf cut with the diode laser should read "Fig. 2B" and not "Fig. 2A". No new matter has been introduced.

Claims 30-31, 40-42, 44-45, and 51 have been canceled.

The objection to the drawings is obviated by appropriate amendment of the drawing sheets for Figs. 2A, 2B and 4. No new matter has been introduced.

The objection to the specification set forth in paragraph 2 of the Office action is not understood by the Applicants. An Abstract of the Disclosure was filed along with a Preliminary Amendment on March 23, 2005, in this application. As can be seen from the attachment, no drawing sheet was present on the page submitted for the Abstract of the

Disclosure. The Examiner is respectfully requested to clarify this objection.

Regarding the objection to the specification set forth in paragraph 3 of the Office action, Applicants have amended the description for Fig. 1 to correspond with the description of Fig. 1 on page 11, line 22, of the specification.

The objection to the specification set forth in paragraph 4 of the Office action is not understood by the Applicants. The Japanese publications JP-A-63157778 and JP-A-6281898 are discussed on pages 2-3 of the specification disclosure as background art. The Applicants respectfully request the Examiner to point out where the present application indicates that these references are "essential material" and to be "incorporated by reference".

In view of the above amendment and remarks, Applicants respectfully request favorable reconsideration and withdrawal of the objections to the specification.

The rejections under 35 U.S.C 103(a) based on the Kuwahara et al., Hamasaki et al., Rizoiu et al., Dyson et al., Chang et al., Sugita et al., Cement and Concrete Faqs., and Steen references, as set forth on pages 4-16 of the Office action, are respectfully traversed.

Referring specifically to the independent claims in this application, claim 29 is rejected under 35 U.S.C. 103(a) as

being unpatentable over Kuwahara et al (JP 62-181898) in view of Hamasaki et al. (US 4,568,814); and claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwahara et al. in view of Hamasaki et al. and further in view of Rizoiu et al. (US 6,231,567).

It is Applicants' position that the cited references, taken alone or in combination, do not disclose or suggest the invention as presently claimed.

Clearly, the Kuwahara et al. reference does not disclose a method and apparatus wherein an unfocused laser beam produces a depth of molten material in the material having a maximum depth of 10 mm at each traverse.

The Hamasaki et al. and Rizoiu et al. references do not fill the gaps left by Kuwahara et al.

Contrary to the Examiner's stated position, it is submitted that the the Hamasaki et al. reference does NOT disclose cutting cement by producing a depth of molten material having a depth of 10 mm at each traverse.

Hamasaki et al. at col. 1, lines 56-60, as referenced by the Examiner in the rejection, mentions nothing about cutting concrete to a depth of 10 mm. The reference at col. 1, lines 56-60, discusses in general terms the nuclear decommissioning of a nuclear reactor, and in particular the breaking down of a wall of the reactor which generally comprises a concrete

layer of about 100 mm in thickness. The teaching at col. 1, lines 56-60, of Hamasaki et al. is not part of the inventive teaching of this document.

Similarly, Rizoiu et al. also does not disclose cutting cement by producing a depth of molten material having a depth of 10 mm at each traverse.

Accordingly, since Kuwahara et al., Hamasaki et al. and Rizoiu et al. fail to teach or suggest cutting cement by producing a depth of molten material having a depth of 10 mm at each traverse, a combination of two or more of these references does not render obvious the invention of independent claims 29 and 47, or claims dependent thereon.

In view of the above, it is believed that the rejections of independent claims 29 and 47 based on the cited art are unsustainable and should be favorably reconsidered and withdrawn.

It follows that dependent claims 32-39, 43, 46, and 48-50 are also unobvious over the cited art for the same reasons.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited. If any final points remain that can be clarified by telephone, Examiner Clark is respectfully encouraged to contact Applicants' attorney at the number indicated below.

Applicants hereby petition the Commissioner for Patents to extend the time for reply to the notice dated April 14, 2009, for three (3) months from July 14, 2009, to October 14, 2009. A duly completed credit card authorization form is attached to effect payment of the extension fee.

Respectfully submitted



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Malcolm J. MacDonald  
Reg. No. 40,250  
Tel: (703) 837-9600 Ex. 24